

REMARKS

Claims 1-6 are currently pending. Claims 1, 5, and 6 stand rejected. Claims 2-4 are objected.

SPECIFICATION

The Examiner has requested that headings be added to the specification to render the specification in better format. In order to comply with the Examiner's request, applicants have amended the specification accordingly.

REJECTIONS UNDER 35 U.S.C. §112

Claim 5 stands rejected under 35 U.S.C. §112, second paragraph as being indefinite for a lack of antecedent basis in the claim for the phrases "**the** side walls" and "**said** one end of each of **said** graphite blocks" (emphasis added; Office Action, page 2).

Applicants have amended claim 5 to address the Examiner's concerns regarding a lack of antecedent basis. Reconsideration and withdrawal of the 35 U.S.C. §112, second paragraph rejection is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §102

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by Gardner (U.S. Patent No. 3,381,741) for the structure above the insert (22) or refractory/ heat insulative members (6) which is considered to be a tundish. Applicants respectfully disagree with the Examiner's contention because the refractory/heat insulative member is not a tundish as claimed in the instant application.

As an initial matter, the Applicant reminds the Examiner that MPEP 2131 states that to anticipate a claim, the cited reference must teach every claim element. In particular, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil*

Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Gardner does not anticipate the claimed invention because the Gardner device is not the same as the instant invention in that each and every element of the claimed invention is not disclosed in the Gardner publication. Specifically, the Examiner points to the structure located above the insert 22 as the tundish.

The instant invention is directed to an apparatus for continuous vertical casting of metal strips, which comprises a mold having top and bottom ends, an open-ended mold cavity with a mold entrance opening at the top end and a strip exit opening at the bottom end, as well as, a tundish for holding molten metal having a discharge opening in direct communication with the mold cavity to feed molten metal into the mold entrance opening past an interface between the tundish and the mold.

In contrast, Gardner reports of an apparatus for continuous casting of ingots where “a body of molten metal is maintained adjacent to a chilled continuous casting mold” (*See*, Abstract of Gardner). Gardner’s mold results in the formation of ingots, not metal strips (*See*, 18 of Figs. 2 and 3). Furthermore, the refractory/ heat insulative members (6) of Gardner are not a tundish. A tundish is defined as: “1. A funnel; 2. A container for pouring molten metal into a mold, having holes in the bottom to prevent splashing” according to *The American Heritage® Dictionary of the English Language, Fourth Edition* © 2000 by Houghton Mifflin Company. Gardner’s refractory/ heat insulative members (*See*, 6 of Figs. 2 and 3 of Gardner) are not for holding molten metal as claimed in claim 1.

Since Gardner discloses refractory/ heat insulative members which can not hold molten metal, the instant application is not anticipated by the Gardner publication. In view of the above reasons, the Applicants respectfully request reconsideration and withdrawal of this §102 rejection.

REJECTIONS UNDER 35 U.S.C. §103

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gardner because “[i]t is conventional to use graphite mold for continuously casting molten metal (see, for example, Tilkak or Wilson).” Applicants respectfully disagree.

Gardner does not describe a mold having end walls. In fact, the apparatus described in Gardner is for casting round ingots, and thus does not have end walls. Therefore, because Gardner does not use end walls, one skilled in the art would not be motivated to combine the use of graphite molds of Wilson or Tilak with the Gardner reference to result in end walls of graphite. Thus, for the reasons above, reconsideration and withdrawal of the §103 rejection over Gardner is respectfully requested.

Furthermore, with respect to claim 6, the Examiner states that “the top structure...slidable relatively [sic] to the sealing element is deemed to be nothing more than an obvious matter of design choice since it does not make any different [sic] in the cast product.” Applicants respectfully disagree with the Examiner’s contention.

Applicants respectfully direct the Examiner’s attention to the instant specification at paragraph [0019] (page 5, ¶2) which states that “[h]orizontal oscillations can be accommodated by the horizontal sliding movements of the mould 10 and the tundish 11 relative to one another that are readily permitted by the sealing member 14A.” Thus, contrary to the Examiner’s contention that the sealing element is nothing more than an obvious matter of design choice, applicants assert that the downwardly facing surface of the tundish which is slidable with respect to the sealing element serves to accommodate the horizontal oscillations. Therefore, Gardner does not teach or suggest the end walls or slidable sealing element. Accordingly, applicants submit that the subject matter of claims 5 and 6 is not obvious in light of Gardner, and respectfully request reconsideration and withdrawal of the 35 U.S.C. §103 rejection to the claims on this ground.

Although Claims 2-4, which depend directly from the base claim 1 identified above, have been objected to as depending from a rejected claim, Applicants present the above reasons in overcoming rejections to the base claim, addressing the Examiner’s concerns and thereby the grounds for rejection of claims 2-4 are moot.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 6009-4710. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

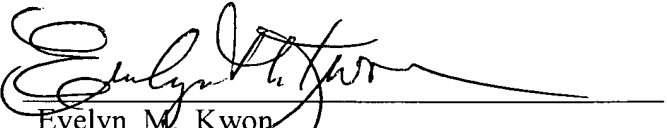
In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 6009-4710. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

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By:


Evelyn M. Kwon
Registration No. 54,246

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile